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PARAMNESIA IN DAILY LIFE

By THEODATE L. SMITH

The word paramnesia as it occurs in this paper is used in its broader meaning and is applied not only to the phenomenon of apparent familiarity with something previously unknown, the *déjà vu* of the French to which it is sometimes restricted, but to the whole group of errors or illusions of memory as usually distinguished from amnesias, but which I believe can be shown to involve an element of amnesia upon which the falsity depends. Some years ago, in consequence of a personal experience, my interest was aroused in these phenomena as they occur in normal individuals; and I have since then, as opportunity occurred, recorded cases of which I was able to obtain a more or less complete analysis. The material thus accumulated now amounts to about forty-five cases, which fall into three groups or types which are explicable in accordance with the psychological laws of memory.

Memory images as distinguished from those of the imagination are characterized by a conscious reference to the past, however dim and vague this may be; and if this is lost, it becomes impossible to distinguish between the two,—a fact which is sometimes of considerable importance in the explanation of plagiarisms which may, from this cause, be absolutely unconscious and thus quite innocent of any intentional deception. Helen Keller's well-known unconscious plagiarism at the age of twelve, which caused her so much unjust suffering, furnishes an excellent example of such a case in which the associations with the past having been lost, a story written by Miss Canby was reproduced as her own. The circumstances were as follows: The autumn after Helen had first learned to speak, she spent summer and fall at the summer home of her family in Alabama and Miss Sullivan described to her, in her usual vivid fashion, the beauties of the autumn foliage. Helen wrote a little story called "The Frost King" which she sent to Dr. Anagnos as a birthday present. The story was a remarkable production for any twelve-year-old child; and for a blind child, a marvel, abounding as it did in vivid descriptions of color. Dr. Anagnos was greatly pleased with

it and published it in "The Mentor." A few weeks later this story was discovered to be an almost verbatim reproduction of a story written years before by Margaret T. Canby and published in a book called "Birdie and His Friends." Miss Sullivan had never seen this book and Helen, though finally convinced that she did not originate the story, could recall absolutely nothing of the way it had come to her. So far as she was concerned, the story, in spite of all her painful efforts to recall the circumstances by which it had come into her mind, still seemed to be her own creation. The explanation was finally found in the fact that four years before, Helen and Miss Sullivan had spent the summer at Brewster with a friend, Mrs. Hopkins, who possessed a copy of Miss Canby's book and who probably, though she could not definitely recall doing so, read it to Helen during Miss Sullivan's absence on a vacation. Helen had at that time been under Miss Sullivan's instruction scarcely a year and a half and had learned her first word after Miss Sullivan's arrival. The story was read to her by the only means of communication then possible, by spelling the words into her hand. It could have conveyed little or no meaning to her mind, but the spelling of strange words probably amused and interested her. It is little wonder that, when four years later the words came so readily to her pen, all previous associations with them should have been lost and they should seem her own. Many years later Miss Keller wrote, "It is certain that I cannot always distinguish my own thoughts from those I read, because what I read becomes the very substance and texture of my mind." Though it is natural that localizing associations should be more readily confused in the absence of visual and auditory sensations, this confusion is, in varying degrees, a common phenomenon of memory. An instance in which this confusion appears in reversed form is illustrated by the experience of a very bright woman who during a discussion on literary topics quoted a very apt passage from Shairp, the English critic, which she had read a day or two previously. In looking up this quotation, however, she found somewhat to her confusion that it was non-existent, being, in fact, her own commentary upon a passage which she had read in Shairp.

The attribution of quotations or ideas to wrong sources is so common as to need no illustration; and the feeling of certainty attached to these distorted memories is often exceedingly strong so that a rummage through the entire works of an author may fail to convince the subject that he

has not somehow overlooked the passage sought. Misquotations, also, in which perhaps the idea of the author is altered or even completely reversed, may be accompanied by this same feeling of certainty as to the correctness of the version given.

In every complete normal memory three elements may be distinguished: (1) a past experience belonging to me; (2) belonging to me in a particular manner, i. e., as something which has originated through sense-experiences or as a mental activity of which the concomitants are reproduced with more or less fullness; (3) the experience is located in past time with more or less definiteness. In paramnesia, the illusion or distortion may be due to the impairment of any of these three elements. It may consist in the transference of another's experience to oneself or *vice versa*; in the addition of false concomitants or imaginary additions to actual events; in the dropping out of some necessary concomitant; in a confusion of mental and sensory experiences; in an apparent recognition of objects really seen for the first time; or in a false localization in time. Paramnesias have until very recently been chiefly studied in connection with hysteria or insanity where the striking and exaggerated forms occur, and discussions of the subject are to be found chiefly in the literature of psychiatry. Yet of the incipient and less exaggerated types, the daily experience of normal individuals furnishes abundant examples. Indeed so common are they that we rarely think of them as connected with the paramnesia of the psychiatrists. But let anyone undertake to describe some trifling event which occurred two or three weeks ago, and he will find the incipient *prototypes* of some of the gravest diseases of memory, though in themselves quite devoid of abnormality. He will probably have a feeling of uncertainty as to the exact date of the occurrence; or if he thinks he remembers it with certainty he is quite likely to find himself mistaken. If he gives up the attempt to locate it exactly and refers it to last week or the week before, his confidence in even that degree of accuracy may prove to be misplaced. Some details will have dropped out, others will be slightly distorted, and very probably some which belong in other connections may be added. Sometimes we have a dim consciousness of these inaccuracies and perhaps even say, 'if I remember rightly' or 'if my memory does not deceive me;' at other times, we are so sure of our accuracy that objective proof is needful to convince us of our error.

Nor is this inaccuracy confined to experiences located rela-

tively far back in time. The same tendencies appear in incipient form in laboratory and *Aussage* experiments, where the recall follows immediately upon the experience. In Dr. Kakise's experiments, the number of repetitions necessary to reproduce a Japanese character by drawing, was, in some instances, perceptibly increased by a false memory due to the distortion of the true image through an association of similarity. In one case, this was so marked that *sixteen* successive exposures of the Japanese character were necessary before the false image was finally set aside and the figure correctly reproduced. In *Aussage* experiments, it has repeatedly been shown that in describing a picture immediately after it has been seen, objects not contained in the picture are given, the position and number of objects are altered and colors are falsely named. These falsifications are considerably increased through unconscious suggestions received from questions. For instance, in the demonstration of his method given by Prof. Stern at the Conference held at Clark University in the fall of 1909, the subject of the experiment when asked if there was anything else against the wall, in addition to what had already been described said: "Yes, there was a cupboard." And when asked its color he answered 'brown;' when questioned as to whether the table had a cover on it he answered 'yes;' and when asked to describe its color, affirmed that it was white. Neither cupboard nor table cover was represented in the picture. In the *Aussage* literature, now of considerable extent, and in that of experimental psychology, may be found the germs of every type of paramnesia. Even in experiments with very simple material, the addition or distortion of visual elements, the transference of letters or syllables belonging in one series to another, wrong localization within the series and even the feeling of 'seen before' (identifying paramnesia) attached to a letter or syllable seen for the first time are all typical errors. In Abramowski's experimental investigation of the illusions of memory, special attention was given to the study of identifying paramnesia which was artificially produced under laboratory conditions. In these experiments words in a series seen with distracted attention and immediately repeated under conditions of normal attention were invariably referred to a preceding series in which they had not occurred.

This particular form of paramnesia or double memory in which a new experience is accompanied by a feeling of having been experienced before is, in its slighter forms, very common among normal individuals. Kraepelin even went so far in

one of his earlier works as to classify it as belonging almost exclusively to normal individuals; but later in the seventh edition of his *Lehrbuch der Psychiatrie* evidently came to a different conclusion, for he there says that "this sometimes occurs transiently in normal life; but in disease may last for months and is particularly characteristic of epilepsy. Hallucinations of memory also occur in paresis, in paranoid dementia and in maniacal forms of manic-depressive insanity." Ribot speaks of the *déjà vu* as rare and this may perhaps be true of the more extreme cases which partake of the nature of an hallucination; for I have been able to obtain, at first hand, but two analysable cases and in only one of these was the analysis, which is here given, fairly complete.

On entering a certain room in the Albrechtsburg at Meissen, which contained a painting of the abduction of the two sons of Kurfurst Friedrich the Gentle (1455) by Kunz von Kaufen, W. was vividly conscious of having been in that room before and of having seen the painting; there was, moreover, a recall of emotions aroused by the experience, which were stronger than were warranted by the present situation. As this particular castle had not been visited before and as the painting was of comparatively recent date, being contemporaneous with a restoration of the castle within recent years, any real memory of either the castle or painting was excluded. As, however, the story of the picture was familiar and other old German castles had been seen in childhood, it seemed possible that the illusory recognition might be due to elements of similarity from these sources. The true explanation, however, was stumbled upon nearly two years later and proved to be an old illustrated edition of historical tales for children, in which the story of the abduction of the princes occurred and which contained a picture of the scene as taking place in an old castle of which the outlines bore a crude resemblance to the room in the Albrechtsburg. The vividness of the false recognition was probably due in this case to the recrudescence of the emotional reactions produced in childhood by the story, as this again occurred on seeing the picture in the old book, and was a genuine associative memory. A very similar case is given by Hawthorne, in which the explanation so closely coincides with the one above given that it is quoted in full: "Stanton Harcourt near Oxford has still in a state of good preservation certain portions of the old castle, among them two venerable towers. One of these towers in its entire capacity, from height to depth, constituted the kitchen of the ancient castle, and is

still used for domestic purposes, although it has not and never had, a chimney: or rather we might say, it is in itself one vast chimney, with a hearth of thirty feet square, and a flue and aperture of the same size. There are two huge fire places within and the interior walls of the tower are blackened with the smoke that for centuries used to gush forth from them, seeking an exit through some wide air holes in the conical roof, full seventy feet above. These lofty openings were capable of being so arranged with reference to the wind, that the cooks are said to have been seldom troubled by the smoke. . . . Now, the place being without a parallel in England and therefore necessarily beyond the experience of an American, it is somewhat remarkable that while we stood gazing at this kitchen, I was haunted and perplexed by an idea that somewhere or other I had seen just this strange spectacle before. The height, the blackness the dismal void before my eyes, seemed as familiar as the decorous neatness of my grandmother's kitchen; only my unaccountable memory of the scene was lighted up, with an image of lurid fires blazing all round the dim interior circuit of the tower. I had never before had so pertinacious an attack, as I could not but suppose it, of that odd state of mind wherein we fitfully and teasingly remember some previous scene or incident, of which the one now passing appears to be but the echo and reduplication. Though the explanation of the mystery did not for some time occur to me, I may as well conclude the matter here. In a letter of Pope's, addressed to the Duke of Buckingham, there is an account of Stanton Harcourt (as I now find, although the name is not mentioned) where he resided while translating a part of the Iliad. It is one of the admirable pieces of description in the language . . . and among other rooms, most of which have since crumbled down and disappeared, he dashes off the grim aspect of this kitchen—which, moreover, he peoples with witches, engaging Satan himself as head cook, who stirs the infernal caldrons that seethe and bubble over the fires. This letter and others relative to his abode here were very familiar to my earlier reading, and remaining still fresh at the bottom of my memory, caused the weird and ghostly sensation that came over me on beholding the real spectacle that had formerly been made so vivid to my imagination."

The phase of identifying paramnesia seems to have received more attention from psychologists than other forms of false memories and there are three chief theories, with some variants, which seek to explain the feeling of a previous

experience. The oldest is that of Anjel (1877) who explains the illusion as resulting from a double perception of the same object due to a larger interval than usual between sensation and perception, which are ordinarily so closely associated that they cannot be distinguished. For some reason, the mind has not organized and localized the sensations as soon as produced and consequently when this is accomplished the result appears already known and produces the illusion. The influence of fatigue furnishes one of the strongest supports for this argument. Lalande (1893) also holds the view of a double representation of the same image, but gives a somewhat different explanation of its mechanism, believing the double image due to an unusual acceleration of mental activity and the concentration of attention on the second image. The laboratory experiments of Abramowski, previously mentioned, support this latter view. Lapie (1893) and Bourdon (1894) maintain that the illusion results from the presence of certain similar or analogous elements in the situation to some previous and forgotten experience, and with this hypothesis my own cases are in accord. According to Kindberg the illusion of memory results from the feeling of active attention and appears in states of disintegration of the mental synthesis, in states of inattention, when we are conscious of the relaxation and inattention. In this case the normal feeling of effort in assimilation is absent and this gives the feeling of something already known. It is quite possible that all three theories may be correct, as they are not necessarily contradictory and the conditions of the phenomenon are so varied, that it may well be that the different hypotheses are all applicable under diverse circumstances. That fatigue is frequently, if not always, a factor in the occurrence not only in this, but in other types of paramnesia, there is considerable evidence.

Dugas reports an interesting case of false memory in a Professor X. who received a letter from a friend apprising him of a visit in a few days. On the day that his friend was expected, he asked his mother with whom he lived a question in regard to her preparation for the guest to arrive that evening, greatly to her surprise, as it was the first time she had heard of the impending visit. X. insisted that he had told her at the table on a certain day and named those present at the time, and it required the evidence of the supposed witnesses to convince him that his memory and not his mother's was at fault. In the same month (the last of the academic year) he twice demanded of his pupils written

exercises that he believed that he had assigned. His memory was very distinct as to the circumstances and as before it required irrefutable evidence to convince him of his error. Dugas thinks that these paramnesias were due to fatigue and explains them by the fact that since nervous fatigue tends to produce enfeeblement of the attention and the psychic states of sensation and memory differ less in matter than in the manner in which the mind envisages them, the distinction between them became obliterated, and with the weakening of the attention a situation mentally rehearsed was mistaken for its actual occurrence. But any distraction of attention, even when no special conditions of fatigue exist, may produce a similar result and cases of this type are of everyday occurrence. The following example is typical. A student remembered leaving his notebook under his seat in the lecture room but failed to find it there next morning. Later, he found it in his locker in the dressing room and then recalled that after having left it under the seat, it had occurred to him that it would be safer in his locker and he had placed it there, but being occupied with other things had completely forgotten the circumstance and had felt very positive that he had left the notebook in the lecture room.

Localization in time is one of the most uncertain elements in memory and unless fixed by external corroborative evidence has as almost its sole criterion the vividness with which the image presents itself to consciousness. In a general way, it is true that the clearness of an image tends to decrease in proportion as the experience recedes in time; but the very fact that we unconsciously apply this rule, leads to many illusions. Sometimes events far back in the past recur with vividness and there is then a tendency to refer them to a nearer date. There is, as it were, a foreshortening of time. In a similar way, events of childhood tend to become magnified because of their vividness. It is a familiar fact that revisiting the scenes of childhood is apt to be a disappointing experience, the hills are so much lower and the houses and trees so much smaller than we remembered them. But displacement in time frequently occurs in recent events as well as in more remote experiences as is illustrated in the following example.

A little girl of about five years who attended kindergarten regularly was presented with a muff which became one of her most prized possessions. One day, a few weeks after she had come into possession of this muff, she came to her teacher at the close of the session in great distress; her muff

was missing. She remembered exactly where she had put it in the morning on a shelf and not only gave all the circumstances with great detail but her statements were corroborated by another little girl who had seen her place the muff on the shelf. Search, however, and questioning of the janitor and children failed to reveal its whereabouts. Two days later a confectioner in the neighborhood sent to inquire if any of the kindergarten children had lost a muff as one of small size had been left in his shop two mornings previously. It proved to be the lost muff. In this case neither of the children had any idea of telling an untruth and, in fact, the details in regard to the muff were perfectly accurate, only they had happened on the day previous to that on which the muff was lost and probably on other days as well, so that the memory of the habitual occurrence had proved stronger than the memory of an omission of it on a certain day.

This form of paramnesia though very common among children in whom the time-sense is characteristically weak, is not at all uncommon among adults and sometimes plays an important part in the testimony of witnesses. In the trial of Lizzie Borden (a famous murder case which occurred some years ago) the evidence really turned on whether the accused wore a particular dress, which was afterwards burned, on the morning of the murder. A group of people at a summer hotel, who sat at the same table, in discussing the validity of the evidence, tried the experiment of having each one state what dresses the other members of the party had worn at breakfast. The errors were so numerous that it was unanimously decided that any evidence on such a point given several weeks after the event would be utterly unreliable; and yet the descriptions of the costumes belonging to each person were in the main correct though in a number of cases not worn on that particular morning. This inference has since been abundantly verified in the *Aussage* experiments of Stern, who concludes that "statements subsequent to the event, in regard to the external appearance of persons, especially in regard to the color of the hair, form of the beard, clothing and its color, have in general no trustworthiness unless the attention has been especially directed to these points at the time of the original perception."

The following case, which at first sight appeared to be completely hallucinatory and to rest upon no foundation in external reality, proved later to be an amnesia in which the dropping out of one link in a chain of impressions gave an apparent falsity to the whole, and is probably typical of a

whole class of cases. On the day after a reception at which about a hundred people were present, B. expressed her regret at not having been able to speak to a lady whom she had noticed to be present, and whom she had not seen for some time. She was surprised by the statement that the lady in question had not been present. This she considered a mistake; and as her memory of having seen her was perfectly clear, proceeded to describe in detail exactly how the lady was dressed, in what part of the room she was standing, with whom she was conversing, the circumstances that had prevented the meeting and the succeeding disappointment at finding that she had left before this had taken place. It was finally objectively proved to her that the lady in question could not have been present as she was not in the city. For several days the subject of the apparent hallucination was quite disturbed, as the apparent memory including her feeling of pleasure at seeing an old acquaintance remained vivid, and only after considerable hard work in going over and over the details of the afternoon was the explanation found. It proved to be the loss of an impression which was not only a fleeting one but immediately followed by a distraction which involved some emotional excitement. When half way across the room to greet the supposed acquaintance, she had been stopped and called aside to take part in a rather exciting discussion. At this moment she had perceived that she had made a mistake in the identity of the person, but this impression was so transitory as to be completely obliterated by the subsequent occurrence, thus leaving an apparently false memory, which on analysis reduced to a simple amnesia of one link in the chain of original impressions.

The transference of experiences belonging to another to oneself is curiously illustrated in the following case of a young lady in the early twenties, who, in discussing early memories, affirmed that she remembered with perfect distinctness an accident which happened at her first weighing, when her age was still counted by hours. She remembered the carpet and furniture in the room and even the colors of the impromptu weighing cradle made by knotting the four corners of a small table cover and, most distinctly of all, the sensation of falling and losing breath when one of the knots slipped. As investigation was possible, it was learned that the story was correct in every detail except that the accident had happened in the case of her elder sister and consequently two years before she was born. Her good faith was undoubted and the memory remained, as far as her own

introspection was concerned, quite as distinct a part of her mental life as any actual occurrence. The memory of the room and of the pattern of the table cover used in weighing were probably genuine memories as she and her sister were both born in the same house, had remained there until she was nearly four years old and the nursery had not been changed. In all probability, she had heard the story of the accident told when she was of an age to be impressed and excited by it, and very likely the catching of breath and feeling of disturbance in circulation were actual memories only displaced in time and slightly distorted in association. A similar case of distorted association has recently been related to me by a member of the University who remembers lying on a pillow and being looked at at a very early age, when, in fact, he was not the observed but the observer, being at the time about four years of age. This reference of the experience of another to the self or vice versa is a common phenomenon of delirium, and of some types of hysteria and insanity; e. g., a patient in the delirium of fever repeatedly expressed pity for another and perfectly healthy person because he had such a terrible pain in his head. In another case, a patient personified her hands, which were swollen and painful, as two little white kittens who were suffering, and complained that the doctor would do nothing to help them. Historical instances of torture or descriptions of suffering are in delirium not only transferred as personal experiences but are afterwards remembered as such, exactly as in the case of unpleasant dreams, the knowledge that the experience was a delusion and of a purely mental character making no difference in the sense of reality accompanying the memory. The delusions of paranoiacs are often of precisely this character, the psychological difference between the memory of a vivid dream or of a fever delirium in normal individuals and the systematized delusions of a paranoiac lying in the fact that in the former case the experiences are recognized as purely mental while in the latter this recognition is wanting. In some interesting autobiographical material written down by a paranoiac and published in an early volume of the *American Journal of Psychology*, the equal ascription of reality to external and purely mental experiences is very noticeable.

I cite one more example, which is of special interest because, while like others, the paramnesia consists in an amnesia at one or two points, the memory image was unusually clear in outline and even the errors are due to suggestion from submerged associations. In a course of lectures dealing

with psycho-analysis, a professor of psychology gave, among the clinical cases described in Freudian literature, the following. A young girl named Recha was, during her father's absence from home, saved from a burning house by a young man wearing a white cloak. The rescuer had been seen for a few days afterwards walking under an avenue of trees near by, but had then disappeared. On the father's return he finds his daughter the victim of a delusion that she had been saved from the flames by her guardian angel, by whose image her mind is completely possessed and with whom she is really in love in an earthly fashion. Her cure is effected by convincing her that her rescuer's disappearance is due to illness, as he is found by her father in a wretched condition, and that he is no angel but a man of depraved character and quite unworthy of her affection. Those familiar with Lessing's "*Nathan der Weise*," will recognize that this supposed Freudian case is the heroine of that drama and that the story is reproduced with great fidelity to the original save in the finale. The occurrence of a product of literary genius more than a century old among the clinical cases of a very modern school of therapy is in itself of psychological interest and the explanation can be traced with tolerable accuracy. Thirty-five years before the professor had taught the drama as part of a German course but had not read it since. This interval, filled with an unusually active mental life and teaching, had quite obliterated the associations, but had left the outline of the story intact except for the details of the cure. As an example of hysterical delusion cured by psychic means, the case is an excellent one and as the recrudescence was vivid, it merely followed the usual psychological law in being referred to a recent date and thus logically classified among the Freudian cases recently studied, though the professor sought it in vain among his references. The changes in the outcome are particularly interesting as they can be traced to the material of the drama itself. In the drama, Recha's cure is effected by proving to her that her rescuer is not only a real person but her brother, as she is not Nathan's own child but has been adopted by him in infancy, although she is ignorant of the fact. The suggestion that his disappearance has been caused by illness and that he may be in want and suffering is, however, made by Nathan, who reproaches Deja, the nurse, for her lack of zeal in seeking Recha's rescuer, saying, "Friendless and penniless, he may be lying without the means to purchase aid." The erroneous interpretation

of his character as given by the professor also contains a partial memory, because when approached by Recha's grateful nurse and companion in the days immediately following the rescue of Recha, he simulates an indifference which he does not feel, and repulses her with rudeness and insults, because being bound by his vows as a templar he really fears to see Recha again.

As the last link in the chain of clear and submerged memories which caused the story to be transformed into a clinical case is the fact that Lessing himself puts into Nathan's mouth the psychological analysis of Recha's malady as well as the suggestion that her cure can be brought about only by psychic means. He recognizes that the strife between wounded feeling due to the rude repulse of the nurse's efforts to induce her rescuer to receive Recha's thanks and her strong feeling of gratitude and attraction toward him has produced a mental illusion which may become permanent unless overcome by convincing her of his earthly existence. And this does, in fact, lead to the happy issue of the drama. All this is so entirely in accord with the Freudian theory of a psychic trauma as the cause of hysteria that the case fits quite naturally into the modern setting of psycho-analysis. Moreover, since mental imagery, as shown by experimental studies, tends to change in the direction of the customary and habitual, the substitution of the train of associations then occupying the professor's mind for the original connections was entirely in accord with the law of habit.

From the analysis of the foregoing cases it appears that paramnesia is reducible to a partial amnesia of the associative processes, in consequence of which the memory image is distorted and appears false.

The amnesia may consist in the dropping out of one or more impressions, as a result of weakened or distracted attention during the original experience, or in the loss of time and place associations. In the latter case, there may result a confusion between objective and subjective conditions, or the memory images thus detached may form a part of new series of mental processes without recognition of their reproductive character.

Paramnesia is thus not in itself an abnormal mental process, since it results from the weakening and blurring which are characteristic phenomena of memory images, but may exhibit all gradations from the slight deviations, which occur in varying degree in all normal reproductive processes, to

extreme cases where the missing associative links and resulting confusion of subjective and objective experiences may completely distort the whole mental activity.

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